

The

DOCKET NO: **D00460.70010US**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

David R. Whitlock

Serial No:

10/573,513

Confirmation No:

3543

Filed:

March 27, 2006

For:

METHODS OF USING AMMONIA OXIDIZING

BACTERIA

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the Utbar day of June, 2007.

Nancy Kell

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Transmitted herewith are the following documents:

[X] Information Disclosure Statement, PTO-Form 1449; and references cited;

[X] Post card.

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 395-7000.

If a fee is required, the Commissioner is hereby authorized to charge Deposit Account No. 50/2762.

Respectfully submitted, David R. Whitlock, Applicant

By:

John N. Anastasi, Reg. No. 37,765 Lisa E. Winsor, Reg. No. 44,405

LOWRIE, LANDO & ANASTASI, LLP

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Cambridge, MA 02142

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Date: June $\frac{1}{4}$, 2007



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INFORMATION DISCLOSURE STATEMENT FILED PURSUANT TO THE DUTY OF DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

Compliance with 37 C.F.R. §1.97

This Information Disclosure Statement has been filed before the mailing date of a first Office Action on the merits in the above-identified case.

No fee or certification is required.

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Information Cited

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

The Applicant hereby makes the following additional information of record in the above-identified application.

The applicant would like to bring to the Examiner's attention the following co-pending applications that may contain subject matter related to this application:

Serial No.	Filing Date	<u>Inventor(s)</u>	Our Ref.
10/332,933	1/14/03	David Whitlock	D0450-7006US
10/501,415	7/9/04	David Whitlock	D0460-7011US

Copies of the above are attached as International Publication Nos. WO 02/13982 A1 and WO 03/057380 A2.

The Applicant would like to bring to the Examiner's attention the enclosed search report from a corresponding International or Foreign National Application.

The applicant would like to bring to the Examiner's attention the following other information, whose relevance is discussed in Part IV below:

Explanation of Non-English Language References and Remarks Concerning Other Information Cited

The following is a concise explanation of the relevance of each non-English language reference listed on the attached form PTO-1449 (modified):

The following are remarks concerning the other information cited:

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<u>WO 98/27991</u> – Appears to be directed to an adsorbable composition containing propionic bacteria. An English language translation is enclosed.

<u>JP 02-169092</u> – Appears to be directed to an immediate-effective urolith dissolving agent. An English language abstract is enclosed.

<u>JP-58-011008</u> – Appears to be directed to a stock compound for feed additive containing active soil bacteria. An English language abstract is enclosed.

Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

- 1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
- 2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
- 3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

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Conf. No.: 3543

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Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted, David R. Whitlock, Applicant

Bv:

John N. Anastasi, Reg. No. 37,765

Lisa E. Winsor, Reg. No. 44,405

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Date: June <u>4</u>, 2007

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet

APPLICATION NO.: 10/332,933

ATTY. DOCKET NO.: D00460.70006.US

FILING DATE: January 14, 2003

CONFIRMATION NO.: 2900

APPLICANT:

David R. Whitlock

GROUP ART UNIT: 1744

EXAMINER: Not yet assigned

		0.3.	PATENT DOCUMENTS	
Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document
		Code		MM-DD-YYYY
*	3,984,575		Farr	10-05-1976
	4,147,807		Gryczka et al.	04-03-1979
	4,335,107		Snoeyenbos et al.	06-15-1982
	4,689,226		Nurmi et al.	08-25-1987
	4,720,344		Ganczarczyk et al.	01-19-1988
	5,139,792		Ware et al.	08-18-1992
	5,176,911		Tosi et al.	01-05-1993
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*	5,314,542		Cassidy et al.	05-24-1994
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	No. * * * * * * * * * * * * *	* 3,984,575 * 4,147,807 * 4,335,107 * 4,689,226 * 4,720,344 * 5,139,792 * 5,176,911 * 5,278,192 * 5,314,542 * 5,322,686 * 5,380,758 * 5,380,758 * 5,385,940 * 5,396,882 * 5,427,797 * 5,451,400 * 5,519,020 * 5,534,253 * 5,570,683 * 5,570,683 * 5,574,068 * 5,595,753 * 5,604,127 * 5,632,981 * 5,645,839 * 5,646,181 * 5,648,393 * 5,648,393 * 5,648,393 * 5,650,447 * 5,663,676 * 5,713,349 * 5,714,511	No. Number Kind Code * 3,984,575 * 4,147,807 * 4,335,107 * 4,689,226 * 4,720,344 * 5,139,792 * 5,176,911 * 5,278,192 * 5,314,542 * 5,322,686 * 5,380,758 * 5,380,758 * 5,386,882 * 5,427,797 * 5,451,400 * 5,519,020 * 5,534,253 * 5,570,683 * 5,570,683 * 5,574,068 * 5,595,753 * 5,604,127 * 5,632,981 * 5,648,393 * 5,648,393 * 5,648,393 * 5,648,393 * 5,650,447 * 5,693,676 * 5,713,349 * 5,714,511	No. Number Kind Code

EXAMINER DATE CONSIDERED

^{*}a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. 10/332,933, filed 1/14/03, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

FORM PTO)-1449/A and B (M	Aodified)		APPLICATION NO	D.: 10/332,933	ATTY. DOCKET NO.: D00460.70006.US
	RMATION I			FILING DATE: Jan	nuary 14, 2003	CONFIRMATION NO.: 2900
STAT	EMENT BY	APPLI	ICANT	APPLICANT:	David R. Whitloo	ck
Sheet	2	Of	5	GROUP ART UNIT	T: 1744	EXAMINER: Not yet assigned

	G.:	U.S. Patent Documer	nt .	Name of Detailed in the Control	Date of Publication or of issue
Examiner's Initials	Cite No.	Number	Kind Code	Name of Patentee or Applicant of Cited Document	of Cited Document MM-DD-YYYY
	*	5,725,492		Igo et al.	03-10-1998
	*	5,728,705		Lawson et al.	03-17-1998
	*	5,765,548		Perry	06-16-1998
	*	5,767,160		Kaesemeyer	06-16-1998
	*	5,789,447		Wink, Jr. et al.	08-04-1998
	*	5,800,385		Demopulos et al.	09-01-1998
	*	5,801,203		Lipton	09-01-1998
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	*	5,821,112		Botto et al.	10-13-1998
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	*	5,834,030	·	Bolton	11-10-1998
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	*	5,849,180		Sumino et al.	12-15-1998
	*	5,849,192		Jagush et al.	12-15-1998
	*	5,858,017		Demopulos et al.	01-12-1999
	*	5,861,168		Cooke et al.	01-19-1999
	*	5,873,359		Zapol et al.	02-23-1999
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	*	5,895,658		Fossel	04-20-1999
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	*	5,958,427		Salzman et al.	09-28-1999
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^{*}a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. 10/332,933, filed 1/14/03, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

FORM PTC	0-1449/A and B (M	lodifie	d)	APPLICATION NO.: 10/332,933	ATTY. DOCKET NO.: D00460.70006.US
	RMATION I			FILING DATE: January 14, 2003	CONFIRMATION NO.: 2900
STAT	EMENT BY	APP	LICAN	APPLICANT: David R. Whitlock	
Sheet	3	Of	5	 GROUP ART UNIT: 1744	EXAMINER: Not yet assigned

U.S. PATENT DOCUMENTS							
Examiner's	Cite	U.S. Patent Document		Name of Patentee or Applicant of Cited	Date of Publication or of issue		
Initials	No.	Number	Kind Code	Document	of Cited Document MM-DD-YYYY		
	*	6,080,401		Reddy et al.	06-27-2000		
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•	*	2005/0036996		Roussel et al.	02-17-2005		

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Examiner's Cite No.	Cite	For	eign Patent Docun	nent	Name of Patentee or Applicant of Cited	Date of Publication of	Translation
	Office/ Country	Number	Kind Code	Document (not necessary)	Cited Document MM-DD-YYYY	(Y/N)	
		JP	59 135845		Souhei Sawamura	08-04-1984	Abstract
		EP	0 780 419		Holland Biomaterials Group B.V.	06-25-1997	
		WO	98/27991		Laboratoires Standa S.A.	07-02-1998	Yes
		JP	02 169092 A		Mitsubishi Mining & Cement Co.	06-29-1990	Abstract
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OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiners	Cite	Include name of the author (in CAPITAL LETTERS) title of the article (when	Translation
Initials	No	appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.),	(Y/N)
		date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	
		Boulay, F. et al.; "Seasonal Variation in Chronic Heart Failure Hospitalizations and Mortality in France"; Circulation, July 20, 1999, pp. 280-286	

EXAMINER	DATE CONSIDERED
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<i>i</i>	·
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^{*}a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. 10/332,933, filed 1/14/03, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

FORM PTO-1449/A and B (Modified)	-	APPLICATION NO.: 10/332,933	ATTY. DOCKET NO.: D00460.70006.US
INFORMATION DISCLOSU		FILING DATE: January 14, 2003	CONFIRMATION NO.: 2900
STATEMENT BY APPLICA	NT	APPLICANT: David R. Whitlock	
Sheet 6 Of 5		GROUP ART UNIT: 1744	EXAMINER: Not yet assigned

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's	Cite	Include name of the author (in CAPITAL LETTERS) title of the article (when	Translatio
Initials	No	appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.),	(Y/N)
		date, relevant page(s), volume-issue number(s), publisher, city and/or country where	
		published.	
		Wittenberg, J.B.; "The Molecular Mechanism of Hemoglobin-facilitated Oxygen	
		Diffusion", The Journal of Biological Chemistry, Vol. 241, No. 1, Issue of January 10,	
		1965, pp. 104-114	
	!	Lee, I et al.; "Physical Activity and Stroke Incidence"; The Harvard Alumni Health Study,	
		October 1998; pp. 2049-2054	
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		Benjamin, N. et al.; "Nitric Oxide and Infection", edited by Fang; Klumer Academic Press,	
		Plenum Publisher, NY, 1999, Chapter 11, pp. 215-230	
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		1022	
		Mannick, J.B. et al.; "S-Nitrosylation of mitochondrial caspases"; The Journal of Cell	
		Biology, Vol. 154, No. 6, 9/17/2001, pp. 1111-1116	
		Torok, N.J. et al.; "Nitric Oxide Inhibits Apoptosis Downstream of Cytochrome c Release	
		by Nitrosylating Caspase", Cancer Research 62, 1648-1653, March 15, 2002	
		Nunomura, A. et al.; "RNA Oxidation is a Prominent Feature of Vulnerable Neurons in	
		Alzheimer's Disease", The Journal of Neuroscience, March 15, 1999, 19(6): 1959-1964	
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•		Kosaka, H.; "Nitric oxide and hemoglobin interactions in the vasculature," BBA 1411	
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:		Bock et al., "Oxidation of Inorganic Nitrogen Compounds as Energy Source", In: The	
		Prokaryotes. A Handbook on the Biology of Bacteria: Ecophysiology, Isolation,	
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		1992, Vol I. Chapter 17, pages 414-417.	
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!		Determined by Analysis of 16s Ribosomal RNA Gene Sequences.	

EXAMINER	DATE CONSIDERED

^{*}a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. 10/332,933, filed 1/14/03, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

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STATEMENT BY APPLICANT	APPLICANT: David R. Whitlock	
Sheet 5 Of 5	GROUP ART UNIT: 1744	EXAMINER: Not yet assigned

OTHER ART — NON PATENT LITERATURE DOCUMENTS

 OTHER MAIN MONTHLENT BILLENTONE DOCUMENTS	
International Search Report for PCT/US04/31690, dated October 2, 2006.	
International Search Report for PCT/US01/25248, dated October 30, 2001.	
International Search Report for PCT/US03/0095	
Supplementary European Search Report for EP 01 96 3935, dated July 27, 2004.	
Ida, et al, "Identification of Genus Nitrosovibrio, Ammonia-Oxidizing Bacteria, by	
Comparison of N-Terminal Amino Acid Sequence of Phosphoglycerate Kinase,", Journal of Bioscience and Bioengineering, Vol. 98, No. 5, 380-383, 2004.	
attc.org/common/catalog/wordSearch/results.cfm, total of 4 pages.	
Brochures for Ultra Bac from ABI, Inc., Cleveland, OH	

EXAMINER	DATE CONSIDERED